

CONTROL SYSTEM FOR UNIFORM MOVEMENT OF MULTIPLE ROLLER SHADES

Abstract of the Disclosure

A system for controlling a roller shade having a roller tube windingly receiving a shade fabric varies roller tube rotational speed for constant linear shade speed. The desired linear shade speed, roller tube diameter and shade fabric thickness and length are stored in a memory for use by a microprocessor. Preferably, the roller tube rotational speed is varied by the microprocessor depending on shade position determined by signals from Hall effect sensors. The microprocessor maintains a counter number that is increased or decreased depending on direction of rotation. Based on the counter number, the microprocessor determines shade position and a corrected rotational speed for the desired linear shade speed. Preferably, the microprocessor controls roller tube rotational speed using a pulse width modulated signal. The system may be used to control first and second roller shades having roller tubes of differing diameters or shade fabrics of varying thicknesses.